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Factors Associated with Post- hospital Nursing Facility Discharge for Patients with Impaired Decision Making

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For some frail patients a skilled nursing facility (SNF) discharge is the therapeutic bridge needed between the hospital and home to ensure continued independent community living. Little is known about the hospital discharge disposition decision.[1] Nearly half of hospitalized older adults will not be making this decision themselves because they are cognitively impaired and require a surrogate decision maker.[2]

Although a patient may need the services of a SNF, this decision can be fraught with conflict because of the stigma associated with nursing homes and the surrogate's sense that they have little say in the decision.[3] In addition to the stigma surrounding nursing homes, other stressors including a surrogate's own social determinants of health, relationship with the patient, and conflict with the inpatient team, can also make the discharge disposition decision difficult for the surrogate. These factors can extend the amount of time required for a surrogate to make a decision for the patient and extend the inpatient stay.[4] We conducted this study to determine the patient and surrogate factors that are associated with the surrogate's decision to discharge to a SNF instead of back to home from the hospital.

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This is a secondary analysis of data prospectively collected for an observational study of inpatients who required a surrogate decision maker.[5] Eligible patients were 65 years and older, lacked decision-making capacity as judged by both physician and caregiver report, had a legally authorized surrogate, and were community dwelling prior to hospital admission.

The primary dependent variable was discharge destination: home versus SNF. Independent variables were grouped according to surrogate and patient characteristics, patient-surrogate relationship, and healthcare experience and utilization of both the surrogate and patient. To better understand factors associated with SNF discharge, we performed bivariate analyses to examine the effect of these variables on the decision to discharge the patient from hospital to SNF. We then selected variables for inclusion in a multivariable logistic regression based on literature review, bivariate analyses, and clinical experience.

Of the 182 community-dwelling patients, 133 were discharged to a SNF and 49 went home (Table 1). In bivariate analyses, the following were significantly associated with SNF discharge ($p<0.05$): inpatient therapist recommendations, lack of pre-hospital home care, lower comorbidity score, surrogate preference for DNR code status, and surrogate or family preference for discharge home. Surrogate health literacy, depression, distrust in the medical system, mood, and variables related to patient-surrogate relationship were not significantly associated with discharge to SNF.

The logistic regression model revealed that for cognitively impaired hospitalized patients with surrogate decision makers, lower CIRS scores (aOR 0.88 CI: 0.77–1.00, $p=0.0435$), PT/OT recommendation for a SNF (aOR 176.16 CI: 27.87- >999, $p<0.001$), and lack of family desire for home discharge (aOR 0.03 CI: 0.00–0.16, $p<0.0001$) all were associated a SNF discharge from the hospital.

This study of hospitalized older adults with impaired decision making capacity found that therapists' recommendations are overwhelmingly associated with the discharge destination of patients. Following the therapist's recommendation is a common clinical practice for physicians.[6] Our study shows that surrogates decision makers also heed their advice in most cases.

The importance of inpatient therapists' recommendations for discharge is not overtly recognized among inpatient clinicians, including among therapists themselves.[6] Physical therapists can be frustrated by receiving consults on the day of discharge and inconsistent notification of the patient's discharge.[7] Furthermore, mismatch between a physical therapists' recommendations and the actual discharge destination is associated with a high risk of readmission.[8] Timely notification of the physical therapist allows them to prepare recommendations for the SNF staff in terms of how much assistance the patient will require, their fall risk, and what therapy modalities to continue.

Even more remarkable than the strength of the association between therapy recommendations and placement is that when surrogates disagree with the therapist, surrogate's wishes overrode the therapist's recommendation. Patients whose surrogates or

other family members expressed a desire for them to be discharged home despite the therapist's recommendation were more likely to be discharged to home.

Conflict between the inpatient team and surrogate is not necessarily a bad outcome because it helps identify issues in the decision making process.[9] Identifying such a conflict early in the hospital stay will enable adequate time for appropriate discharge planning. Surrogates and clinicians may have different opinions about the severity of illness and prognosis of the patient, which likely contributes to differing opinions on discharge disposition.[10] Given the importance of therapist and family perspectives about the patient's discharge destination, early therapy consult and early discussions with the surrogate may help facilitate discharge planning.

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Table 1:

Patient and Surrogate Characteristics and Multivariate Model of Decision to Discharge to Skilled Nursing Facility

Variable	Home Discharge (n=49)	SNF Discharge (n=133)	Univariate Analyses p-value	Multivariate Models
Patient				
Patient Age	82.57 (8.99)	82.77 (7.99)	.886	0.99 (0.91, 1.08); p=.812
Patient Gender: Female vs. Male (reference)	32 (65.3)	89 (66.9)	.838	1.19 (0.31, 4.58); p=.806
Patient Race: White vs. Non-White (reference)	18 (36.7)	41 (30.8)	.451	2.71 (0.58, 12.69); p=.2067
Insurance: Medicaid/Dual vs Medicare/Other (ref)	35 (71.4)	111 (84.1)	.055	0.19 (0.04, 1.05); p=.056
CIRS score	25.29 (6.30)	22.17 (5.56)	.002*	0.88 (0.77, 1.00); p=.044*
Lives alone: yes vs. no (reference)	8 (16.3)	19 (14.3)	.731	0.48 (0.09, 2.57); p=.388
Surrogate				
Surrogate Age	59.12 (10.04)	59.06 (9.99)	.975	0.97 (0.91, 1.03); p=.327
Surrogate Gender: Female vs. Male (reference)	37 (75.5)	95 (71.4)	.585	2.43 (0.45, 12.98); p=.300
Surrogate Prior Hospitalization	31 (63.3)	103 (77.4)	.054	3.00 (0.79, 11.44); p=.108
Surrogate Self-rated Health:			.415	0.62 (0.11, 3.41); p=.585
Excellent/Very Good/Good versus	40 (81.6)	101 (75.9)		
Fair/Poor	9 (18.4)	32 (24.1)		
Health Care Experience and Utilization				
Geriatrics Consult	11 (22.9)	48 (36.1)	.095	0.64 (0.15, 2.68); p=.543
PT/OT recommended SNF	19 (38.8)	125 (94.7)	p<.001*	176.16 (27.87, >999); p<.001*
Home Care Prior to Admission	7 (14.6)	7 (5.3)	.038*	0.14 (0.02, 1.02); p=.052
Surrogate desires resuscitation	27 (57.5)	45 (36.6)	.014*	0.46 (0.11, 1.92); p=.287
Health care representative assigned or advanced directive specified prior to admission	45 (91.8)	108 (81.2)	.082	0.38 (0.04, 3.29); p=.379
Discharge Diagnoses			.005*	
Neurologic	12 (24.5)	48 (36.6)		2.17 (0.57, 8.31); p=.474
Trauma	1 (1.0)	19 (14.5)		1.33 (0.10, 18.55); p=.939
Medical (reference)	36 (73.5)	64 (48.9)		
Family Prefers Home	13 (27.1)	7 (5.3)	<.001*	0.03 (0.00, 0.16); p<.001*

Values are means (standard deviations) for continuous variables and frequencies (percentages) for categorical variables, with p-values from Student's t-tests and Chi-Square tests, respectively. Due to some continuous variables being skewed, values are given as median (range) with Wilcoxon non-parametric tests being used, with such variables marked with an €. Statistically significant values ($p < 0.05$) are marked with an *.